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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,548	06/12/2001	Katsunari Tezuka	06501-077001	9334

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EXAMINER

ROARK, JESSICA H

ART UNIT

PAPER NUMBER

1644

DATE MAILED: 03/06/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/830,548

Applicant(s)

TEZUKA ET AL.

Examiner

Jessica H. Roark

Art Unit

1644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-32 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1-32 are pending and under consideration.

2. Applicant's election with traverse of Group I with species of (a) methods of treating GVHR or immune rejection accompanying GVHR or transplantation of an organ or tissue and (b) an antibody to AILIM in Paper No. 18 is acknowledged.

The traversal is on the grounds that the genus-species relationship asserted by the Examiner between methods of treating inflammation in a subject (claim 10) is not generic to the methods set forth in independent claims 1, 18 and 25.

Applicant argues that the specification on page 13 at lines 8-23 only discloses exemplary diseases that are *accompanied* by inflammation, and points out that inflammation is one of the specific conditions disclosed individually in the specification on page 12 at line 31 to page 13 at line 3.

Applicant's arguments regarding the absence of a true genus-species relationship with respect to inflammation and the specific conditions set forth in claims 1, 18 and 25 is found convincing. The Examiner agrees that the specific conditions set forth in claims 1, 18 and 25 involve additional aspects that are not encompassed by "inflammation". Thus although "inflammation" may be present in each of the specific conditions set forth in claims 1, 18 and 25; "inflammation" does not "comprehend within its confines the organization covered in each" of these specific conditions.

The species requirement is therefore withdrawn with respect to the election of a specific type of inflammation from among those set forth in claims 1, 18 and 25.

Applicant indicates that if the species requirement is withdrawn, claims 1-7, 10-15, 18-22 and 25-30 read on the other elected species of "an antibody", and can therefore be examined together.

Applicant's argument that claims 1-7, 10-15, 18-22 and 25-30 can be examined together is not found convincing. Although Applicant has advanced a convincing argument regarding the lack of a genus-species relationship; these claims nevertheless encompass patentably distinct subject matter for the reasons set forth below.

In view of Applicant's arguments, filed 12/19/02, the previous Restriction Requirement and Species Election is hereby VACATED.

A new Restriction Requirement and Species Election follows.

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Restriction

3. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted:

I. Claims 1-7, drawn to method of treating arthrosis comprising administering a protein substance that modulates signal transduction by AILIM.

II. Claims 1-5 and 8-9, drawn to method of treating arthrosis comprising administering a non-protein substance that modulates signal transduction by AILIM.

III. Claims 10-15, drawn to method of treating inflammation comprising administering a protein substance that modulates signal transduction by AILIM.

IV. Claims 10-13 and 16-17, drawn to method of treating inflammation comprising administering a non-protein substance that modulates signal transduction by AILIM.

V. Claims 18-22, drawn to method of treating graft versus host reaction comprising administering a protein substance that modulates signal transduction by AILIM.

VI. Claims 18-20 and 23-24, drawn to method of treating graft versus host reaction comprising administering a non-protein substance that modulates signal transduction by AILIM.

VII. Claims 18-22, drawn to method of treating immune rejection accompanying graft versus host reaction comprising administering a protein substance that modulates signal transduction by AILIM.

VIII. Claims 18-20 and 23-24, drawn to method of treating immune rejection accompanying graft versus host reaction comprising administering a non-protein substance that modulates signal transduction by AILIM.

IX. Claims 18-22, drawn to method of treating immune rejection accompanying transplantation of a tissue or organ comprising administering a protein substance that modulates signal transduction by AILIM.

X. Claims 18-20 and 23-24, drawn to method of treating immune rejection accompanying transplantation of a tissue or organ comprising administering a non-protein substance that modulates signal transduction by AILIM.

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XI. Claims 25-30, drawn to method of treating an immune response triggered by a foreign antigen comprising administering a protein substance that modulates signal transduction by AILIM.

XII. Claims 25-28 and 31-32, drawn to method of treating an immune response triggered by a foreign antigen comprising administering a non-protein substance that modulates signal transduction by AILIM.

XIII. Claims 25-30, drawn to method of treating an immune response triggered by an autoantigen comprising administering a protein substance that modulates signal transduction by AILIM.

XIV. Claims 25-28 and 31-32, drawn to method of treating an immune response triggered by an autoantigen comprising administering a non-protein substance that modulates signal transduction by AILIM.

4. Claim 1 link inventions I and II. Claim 10 links inventions III and IV. Claim 18 links inventions V and VI, inventions VII and VIII and inventions IX and X. Claim 25 links inventions XI and XII and inventions XIII and XIV. The restriction requirement between the linked inventions is subject to the nonallowance of the linking claims, claims 1, 10, 18 and 25, between each indicated pair of linked inventions. Upon the allowance of the linking claims, the restriction requirement as to the linked inventions shall be withdrawn and any claims depending from or otherwise including all the limitations of the allowable linking claims will be entitled to examination in the instant application. *To clarify, should Group XI be elected and found allowable, the restriction requirement between Groups XI and XII, but not Groups XIII and XIV, would be withdrawn.* Applicants are advised that if any such claims depending from or including all the limitations of the allowable linking claims is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

5. The inventions listed as Groups I-XIV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Groups IX and XIII were found to have no special technical feature that defined the contribution over the prior art of Kroczeck (DE 198 21 060 A1, laid open 14 April 1999, of record).

Kroczeck teaches an antibody to the 8F4 polypeptide, which is the same as the instant AILIM polypeptide and its use as a pharmaceutical composition in methods of preventing rejection reactions in organ transplants and for the treatment of autoimmune diseases (see e.g., page 12 of translation). An antibody to the 8F4 polypeptide is a protein that modulates signal transduction by AILIM; The teachings of Kroczeck thus anticipate the Inventions of Groups IX and XIII.

Since Applicant's Inventions do not contribute a special technical feature when viewed over the prior art they do not have a single general inventive concept and so lack unity of invention.

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6. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed.

Species Election

7. This application contains claims directed to the following patentably distinct species of the claimed Inventions I and II: wherein the arthrosis is:

- A) rheumatoid arthritis, or
- B) osteoarthritis.

These species are distinct because each patient population is distinct and the diseases involve different pathophysiologies; thus each specific form of arthrosis represents patentably distinct subject matter.

Applicant is required under 35 U.S.C. § 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

8. This application contains claims directed to the following patentably distinct species of the claimed Inventions I, III, V, VII, IX, XI and XIII: wherein the protein substance used in the method of treating is:

- A) an antibody which binds AILIM,
- B) an extracellular region of AILIM or a fusion protein thereof, or
- C) a (non-antibody) polypeptide that binds AILIM.

These species are distinct because their structures differ; thus each method comprising administering these protein substances represents patentably distinct subject matter.

Applicant is required under 35 U.S.C. § 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 6, 14, 21 and 29 are generic.

9. This application contains claims directed to the following patentably distinct species of the claimed Inventions II, IV, VI, VIII, X and XII: wherein the non-protein substance used in the method of treating is:

- A) DNA,
- B) RNA, or
- C) a chemically synthesized compound.

These species are distinct because their structures differ; thus each method comprising administering these non-protein substances represents patentably distinct subject matter.

Applicant is required under 35 U.S.C. § 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 8, 16, 23 and 31 are generic.

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10. Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 C.F.R. § 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. M.P.E.P. § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103 of the other invention.

11. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica H. Roark, whose telephone number is (703) 605-1209. The examiner can normally be reached Monday to Friday, 8:00 to 4:30. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached at (703) 308-3973. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1600 receptionist whose telephone number is (703) 308-0196.

Papers related to this application may be submitted to Technology Center 1600 by facsimile transmission. Papers should be faxed to Technology Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center telephone number is (703) 305-3014.

Jessica Roark, Ph.D.
Patent Examiner
Technology Center 1600
March 5, 2003

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